NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT
and Gary Division of Air Pollution Control

Beaver Oil Company, Inc.
1040 Michigan Street
Gary, Indiana 46402

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 089-10557-00151	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and the Gary Division of Air Polution Control. The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a lubricating oil recycling plant.

Authorized Individual:	Roger Vintika
Source Address:	1040 Michigan Street, Gary, Indiana 46402
Mailing Address:	6037 Lenzi Avenue, Hodgkins, Illinois 60525
Phone Number:	708-354-4040
SIC Code:	2992
County Location:	Lake
County Status:	Nonattainment for PM10, SO_2 and CO Severe nonattainment for ozone Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under Emission Offset Rules

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units capable of processing a maximum of 25,000 gallons per day of raw material (lubricating oil and water):

(a) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to combust natural gas and No. 2 fuel oil;

(b) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;

(c) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;

(d) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;

(e) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;

(f) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;

(g) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;

(h) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol); and

(i) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.

This stationary source is also approved to operate the following emissions units and pollution control devices:

(j) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to combust natural gas and No. 2 fuel oil.

(k) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;

(l) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;

(m) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;

(n) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;

(o) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;

(p) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;

(q) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;

(r) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;

(s) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;

(t) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material;

(u) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material; and

(v) one (1) Cleaver Brooks boiler with a maximum heat input rate of 2.9 million British thermal units per hour and having the capacity to combust No. 2 fuel oil.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding Condition B.7, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, and the Gary Division of Air Polution Control, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.7 Local Agency Requirement

That an application for an operation permit must be made ninety (90) days before start up to:

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The operation permit issued by the Gary Division of Air Polution Control shall contain as a minimum the conditions in the Operation Conditions section of this permit.

B.8 NSPS Reporting Requirement

That pursuant to the New Source Performance Standards (NSPS), Part 60.110b, Subpart Kb, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Commencement of construction date (no later than 30 days after such date);

(b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

(c) Actual start-up date (within 15 days after such date); and

(d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The application and enforcement of these standards have been delegated to the IDEM, OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Emission Offset Minor Source Status [326 IAC 2-3]

Any change or modification which may increase potential to emit of VOC or NO_X to 25 tons per year or increase potential to emit of any other criteria pollutant to 100 tons per year from this source, shall cause this source to be considered a major source under Emission Offset, 326 IAC 2-3, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, and the Gary Division of Air Polution Control upon request and shall be subject to review and approval by IDEM, OAM, and the Gary Division of Air Polution Control.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

Any such application should be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, the Gary Division of Air Polution Control, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, and the Gary Division of Air Polution Control, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, the Gary Division of Air Polution Control, nor an authorized representative, may disclose the information unless and until IDEM, OAM, and the Gary Division of Air Polution Control makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, IDEM, OAM, and the Gary Division of Air Polution Control acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch and the Gary Division of Air Polution Control, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, and the Gary Division of Air Polution Control shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM and the Gary Division of Air Polution Control, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM and the Gary Division of Air Polution Control within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Pe4rmittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results.

The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM and the Gary Division of Air Polution Control upon request and shall be subject to review and approval by IDEM, OAM, and the Gary Division of Air Polution Control. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.16 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM and the Gary Division of Air Polution Control may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.17 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, and the Gary Division of Air Polution Control representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the Gary Division of Air Polution Control makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the Gary Division of Air Polution Control within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

The Gary Division of Air Polution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and the Gary Division of Air Polution Control on or before the date it is due.

(d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Two (2) boilers:

(a) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to combust natural gas and No. 2 fuel oil.

(b) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to combust natural gas and No. 2 fuel oil.

Emission Limitations and Standards

D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(c)):

(a) particulate emissions from Boiler-1 shall not exceed 0.60 pounds of particulate matter per million British thermal units heat input; and

(b) particulate emissions from Boiler-2 shall not exceed 0.56 pounds of particulate matter per million British thermal units heat input.

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit(s) is in compliance. If testing is required by IDEM or the Gary Division of Air Pollution Control, compliance with the particulate matter limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.3 Visible Emissions Notations

(a) Daily visible emission notations of the boiler stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Record Keeping Requirements

(a) To document compliance with Condition D.1.3, the Permittee shall maintain records of daily visible emission notations of the boiler stack exhausts.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Forty-one (41) liquid storage tanks:

(a) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;
(b) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;
(c) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;
(d) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;
(e) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;
(f) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;
(g) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol);
(h) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.
(i) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;
(j) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;
(k) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;
(l) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;
(m) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;
(n) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;
(o) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;
(p) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water; and
(q) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;
(r) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material;
(s) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.1 Volatile Liquid Storage Tanks [326 IAC 12]

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb), the permittee shall maintain accessible records for the following liquid storage tanks: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, S1, S2, S3, S4, S5, and T12. These records shall include the dimension of the storage vessels and an analysis showing the capacity of the storage vessels. These records shall be kept for the life of the storage tanks.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?_____, 100 LBS/HR VOC ?_____, 100 LBS/HR SULFUR DIOXIDE ?_____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?_____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____

LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____
_____
_____

MALFUNCTION REPORTED BY: _____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____DATE:_____TIME:_____

FAX NUMBER - 317 233-5967

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO2, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Indiana Department of Environmental Management
Office of Air Management
and Gary Division of Air Pollution Control

Technical Support Document (TSD) for New Source Construction and Minor Source Operating Permit

Source Background and Description

Source Name: **Beaver Oil Company, Inc.**
Source Location: **1040 Michigan Street, Gary, Indiana 46402**
County: **Lake**
SIC Code: **2992**
Operation Permit No.: **089-10557-00151**
Permit Reviewer: **Janusz Johnson**

The Office of Air Management (OAM) has reviewed an application from Beaver Oil Company, Inc., relating to the construction and operation of the following new emission units at the lubricating oil recycling plant:

(a) one (1) Cleaver Brooks boiler with a maximum heat input rate of 8.37 million British thermal units per hour, designated Boiler-2, having the capacity to combust natural gas and No. 2 fuel oil (this new boiler will replace the existing 2.9 MMBtu/hr Cleaver Brooks boiler);

(b) five (5) 25,000 gallon vertical fixed roof liquid storage tanks, designated F5 through F9, storing finished product oil;

(c) one (1) 20,000 gallon vertical fixed roof liquid storage tank, designated F10, storing No. 2 fuel oil;

(d) one (1) 33,000 gallon vertical fixed roof liquid storage tank, designated F11, storing finished product oil;

(e) one (1) 30,000 gallon vertical fixed roof liquid storage tank, designated F12, storing finished product oil;

(f) one (1) 10,000 gallon vertical fixed roof liquid storage tank, designated S8, storing incoming raw material;

(g) two (2) 10,000 gallon vertical fixed roof liquid storage tanks, designated T10 and T11, storing finished product oil;

(h) two (2) 3,000 gallon horizontal fixed roof liquid storage tanks, designated AF1 and AF2, storing antifreeze (ethylene glycol); and

(i) two (2) 5,000 gallon vertical fixed roof liquid storage tanks, designated BF1 and BF2, storing No. 2 fuel oil.

(j) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to combust natural gas and No. 2 fuel oil.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(j) one (1) Johnston boiler with a maximum heat input rate of 4.19 million British thermal units per hour, designated Boiler-1, having the capacity to combust natural gas and No. 2 fuel oil.

(k) two (2) 15,275 gallon horizontal fixed roof liquid storage tanks, designated F1 and F2, storing finished product oil;

(l) two (2) 25,000 gallon vertical fixed roof liquid storage tanks, designated F3 and F4, storing finished product oil;

(m) three (3) horizontal fixed roof liquid storage tanks, designated FP-1, FT-1 and FT-2, with capacities of 4894 gallons, 3854 gallons, and 4174 gallons, respectively, storing finished product oil;

(n) three (3) vertical fixed roof liquid storage tanks, designated R1 through R3, with capacities of 3600 gallons, 3600 gallons, and 6017 gallons, respectively, for processing raw material;

(o) five (5) 15,275 gallon horizontal fixed roof liquid storage tanks, designated S1 through S5, storing incoming raw material;

(p) two (2) 4700 gallon vertical fixed roof liquid storage tanks, designated T1 and T2, for processing raw material;

(q) three (3) 7050 gallon vertical fixed roof liquid storage tanks, designated T3 through T5, storing incoming raw material;

(r) one (1) 7050 gallon vertical fixed roof liquid storage tank, designated T6, storing wash water;

(s) one (1) 5325 gallon horizontal fixed roof liquid storage tank, designated T7, storing incoming raw material;

(t) three (3) 5288 gallon vertical fixed roof liquid storage tanks, designated T8A, T8B and T9, storing incoming raw material;

(u) one (1) 15,000 gallon vertical fixed roof liquid storage tank, designated T12, for processing raw material; and

(v) one (1) Cleaver Brooks boiler with a maximum heat input rate of 2.9 million British thermal units per hour and having the capacity to combust No. 2 fuel oil. <u>This existing boiler will be replaced by the new Cleaver Brooks 8.37 MMBtu/hr boiler.</u>

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP-089-3249-00151 , issued on May 2, 1994.

(b) City of Gary Air Pollution Control Certificate of Operation No. 01850, issued July 2, 1993.

(c) City of Gary Air Pollution Control Certificate of Operation No. 02021, issued July 10, 1995.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Johnston	Boiler-1	32.5	1.2	1391	450
Cleaver-Brooks	Boiler-2	22.1	1.5	2646	450

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 20, 1999.

Emission Calculations

The volatile organic compound emissions from the existing tanks previously registered under CP-089-3249-00151 have been revised. The changes incorporate new vapor pressure analysis results which more accurately reflect the volatility of VOCs in a composite raw material sample by removing water from the sample by centrifuging prior to testing. The previous vapor pressure analysis results used as the basis of CP-089-3249-00151 were biased high because water was volatilizing before some of the volatile components in the sample. The revised vapor pressure reduces the predicted emissions from the existing tanks from 23.6 tons of VOC per year to 2.5 tons of VOC per year based on a maximum throughput of 25,000 gallons of raw materials (lubricating oil and water mix) per day.

See Appendix A of this document for detailed emissions calculations (10 pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year) *
PM	1.3
PM-10	1.3
SO_2	27.9
VOC	3.7
CO	4.6
NO_x	7.8

HAP's	Potential To Emit (tons/year) *
Single HAP	less than 3.7
Combined HAPs	less than 3.7

* *Does not include PTE of the 2.9 MMBtu/hr existing Cleaver Brooks boiler which will be removed as a result of the project.*

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) volatile organic compounds (VOC) are less than 25 tons per year and the potential to emit all other regulated air pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and any combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of sulfur dioxide (SO_2) is equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1 (Minor Source Operating Permit Program).

(d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	moderate nonattainment
SO_2	primary nonattainment
NO_2	attainment
Ozone	severe nonattainment
CO	primary nonattainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Lake County has been classified as nonattainment for PM10, CO (portions only), and SO_2. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Source Status

Existing Source Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions * (ton/yr)
PM	0.7
PM10	0.7
SO_2	15.7
VOC **	3.5
CO	2.0
NO_x	4.4

* Emissions from all existing emission units located at the source including the 2.9 MMBtu/hr Cleaver Brooks boiler (which will be removed as part of the proposed project), the 4.19 MMBtu/hr Johnston boiler, and existing storage tanks.

** VOC emissions from the existing storage tanks are based on the revised vapor pressure information discussed in the Emissions Calculations section of this TSD and the total throughput of the source (The emissions calculated for the existing tanks in Appendix A are based on the portion of total throughput that will be associated with those tanks after the proposed new equipment is added.

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and it is not in one of the 28 listed source categories.

(c) This existing source is **not** a major stationary source because no severe nonattainment regulated pollutant (or precursor) is emitted at a rate of 25 tons per year.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification *	0.9	0.9	18.6	1.0	3.1	5.2
Offset Threshold Level	100	100	100	25	100	25

* PTE from the proposed modification includes only the portion of VOC emissions due to throughput associated with the new storage tanks and the combustion emissions from the new Cleaver Brooks boiler.

This modification to an existing minor stationary source is not major because the emission increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, based on the emissions from this permit CP-089-10557-00151, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

Federal Rule Applicability

(a) Neither of the boilers are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because the maximum heat input capacity of each is less than 10 million British thermal units per hour.

(b) The following liquid storage tanks are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Parts 60.110b, Subpart Kb) because the tanks were constructed after July 23, 1984, and have capacities greater than 10,568 gallons. Records of capacity and dimension shall be kept for each of these tanks pursuant to this rule for the life of the source:

Tank ID	Capacity
F1	15275
F2	15275
F3	25000
F4	25000
S1	15275
S2	15275
S3	15275
S4	15275

S5	15275
T12	15000
F5	25000
F6	25000
F7	25000
F8	25000
F9	25000
F10	20000
F11	33000
F12	30000

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit VOC and NO_X is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1-11.1 (Lake County fugitive particulate matter control requirements)

The requirements of this rule do not apply to this source because the potential to emit fugitive particulate matter is less than five (5) tons per year. This is based on the estimation of 20 personal vehicles and 5 trucks entering and leaving the property on a daily basis.

326 IAC 6-4 (Fugitive dust emissions)

This rule requires the source not generate fugitive dust to the extent that some portion to the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating)

Pursuant to this rule, particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$Pt = 1.09/Q^{0.26}$ where: Pt = Pounds of particulate matter emitted per million Btu heat input

Q = Total source maximum operating capacity rating in million Btu per hour heat input.

Note: For Q less than 10 MMBtu/hr Pt shall not exceed 0.6.

At the time the 4.19 MMBtu/hr Johnston boiler was constructed it was the only source of indirect heating and the total Q was less than 10 MMBtu/hr. Therefore, the particulate matter emissions from the Johnston boiler shall not exceed 0.60 lbs/MMBtu.

The new 8.37 MMBtu/hr Cleaver Brooks boiler will replace the existing 2.9 MMBtu/hr Cleaver Brooks boiler. The total source maximum operating capacity will then be the sum of the 4.19 MMBtu/hr Johnston boiler and the new 8.37 MMBtu/hr Cleaver Brooks boiler, a total Q of 12.56 MMBtu/hr. Based on the equation above, the particulate matter emissions from the new Cleaver Brooks boiler shall not exceed 0.56 lbs/MMBtu.

326 IAC 7-1.1 (Sulfur dioxide emission limitations)

The provisions of this rule do not apply to the boilers at this source because each facility has the potential to emit less than twenty-five (25) tons per year and less than ten (10) pounds per hour of sulfur dioxide.

326 IAC 7-4-1.1 (Sulfur dioxide emission limitations: Lake County)

This rule does not apply to the boilers located at this source because they are not subject to 326 IAC 7-1.1.

326 IAC 8-4-3 (Petroleum liquid storage facilities)

This rule is not applicable to any of the liquid storage tanks at the source because they are each less than 39,000 gallons in capacity.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

Conclusion

The construction of the new boiler and new liquid storage tanks, and the operation of this lubricating oil recycling plant shall be subject to the conditions of the attached proposed **New Source Construction and Minor Source Operating Permit 089-10557-00151.**

Indiana Department of Environmental Management
Office of Air Management
and Gary Division of Air Pollution Control

Addendum to the
Technical Support Document for New Source Construction and
Minor Source Operating Permit

Source Name:	Beaver Oil Company, Inc.
Source Location:	1040 Michigan Street, Gary, Indiana 46402
County:	Lake
SIC Code:	2992
Operation Permit No.:	089-10557-00151
Permit Reviewer:	Janusz Johnson

On April 6, 1999, the Office of Air Management (OAM) had a notice published in the *Gary Post Tribune*, Gary, Indiana, stating that Beaver Oil Company, Inc., had applied for a construction permit to construct and operate a new boiler and liquid storage tanks at an existing lubricating oil recycling plant. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 5, 1999, the OAM determined that the following changes to the draft permit documents are necessary (new language is bolded for emphasis):

1. On Page 7 of 8 of the TSD, a typographical error was made in Item (a) of the 326 IAC 5-1 (Visible Emissions Limitations) rule applicability language. Item (a) should have read as follows:

   (a) Opacity shall not exceed an average of **twenty** percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   The language of the corresponding condition in the permit, C.7 (Opacity), was correct in the draft and no change to the permit is required.

2. Based on a phone conversation with Roger Vintika of Beaver Oil Company, Inc., an error was made in the description of liquid storage tank F3. The tank was described as a vertical fixed roof tank in both the TSD and the draft permit when, in fact, it is a horizontal fixed roof tank. The description in Item (l) of the TSD (Page 2) should have read as follows:

   (l) one (1) 25,000 gallon horizontal fixed roof liquid storage tank, designated F3, and one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated F4, each storing finished product oil;

   The description of the tank in Item (l) of Section A.2 and Item (j) of Section D.2 of the permit shall be revised as follows:

   ~~two (2)~~ **one (1)** 25,000 gallon ~~vertical~~ **horizontal** fixed roof liquid storage tank~~s~~, designated F3**,** and **one (1) 25,000 gallon vertical fixed roof liquid storage tank, designated** F4, **each** storing finished product oil;

   There is no change in the potential to emit (PTE) volatile organic compounds (VOC) from Tank F3 as a result of this change.

Appendix A: Emissions Calculations
Storage Tank Summary
(calculations based on AP-42 factors as calculated by Tanks 3.1)

Company Name: Beaver Oil Company, Inc.
Address, City IN Zip: 1040 Michigan Street, Gary, IN
CP: 089-10557
Plt ID: 089-00151
Reviewer: Janusz Johnson
Date: 02/23/99

Tank ID	Description	Material Stored	Temperature (deg. F)	est. vapor pressure (psia)	Capacity (gallons)	Annual Throughput (gallons)	Annual Losses (lbs/yr)
Existing Tanks (registered under 089-3249)							
F1	horizontal fixed roof	finished product	150	0.14503	15275	221317.6	139.45
F2	horizontal fixed roof	finished product	150	0.14503	15275	221317.6	139.45
F3	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F4	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
FP-1	horizontal fixed roof	finished product	150	0.14503	4894	70571.2	44.75
FT-1	horizontal fixed roof	finished product	150	0.14503	3854	55568.8	35.25
FT-2	horizontal fixed roof	finished product	150	0.14503	4174	60188.8	37.97
R1	vertical fixed roof	material in process	180	0.27458	3600	870882.6	195.37
R2	vertical fixed roof	material in process	180	0.27458	3600	870882.6	195.37
R3	vertical fixed roof	material in process	180	0.27458	6017	1455582.8	332.97
S1	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S2	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S3	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S4	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
S5	horizontal fixed roof	raw material	150	0.14503	15275	1100520.4	299.10
T1	vertical fixed roof	material in process	180	0.27458	4700	1136984.8	246.54
T2	vertical fixed roof	material in process	180	0.27458	4700	1136984.8	246.54
T3	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T4	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T5	vertical fixed roof	raw material	150	0.14503	7050	507932.6	123.80
T6	vertical fixed roof	soapy wash water	ambient	-	7050	-	-
T7	horizontal fixed roof	raw material	150	0.14503	5325	383650.4	104.49
T8A	vertical fixed roof	raw material	150	0.14503	5288	380984.8	95.68
T8B	vertical fixed roof	raw material	150	0.14503	5288	228244.8	92.71
T9	vertical fixed roof	raw material	150	0.14503	5288	360235.4	101.06
T12	vertical fixed roof	material in process	180	0.27458	15000	3628676.8	832.67
						VOC EMISSIONS from old tanks (lb/yr)	5057.87
						(ton/yr)	2.53
New Tanks							
F5	vertical fixed roof	finished product	150	0.14503	25000	362222.0	196.83
F6	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F7	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F8	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F9	vertical fixed roof	finished product	150	0.14503	25000	362222.0	175.35
F10	vertical fixed roof	fuel oil bulk storage	ambient	0.0074	20000	785897.0	20.81
F11	vertical fixed roof	finished product	150	0.14503	33000	475860.0	202.68
F12	vertical fixed roof	finished product	150	0.14503	30000	432600.0	202.08
S8	vertical fixed roof	raw material	150	0.14503	10000	720472.2	164.03
T10	vertical fixed roof	finished product	150	0.14503	10000	144200.0	71.35
T11	vertical fixed roof	finished product	150	0.14503	10000	144200.0	71.35
AF1	horizontal fixed roof	antifreeze storage	ambient	-	3000	-	-
AF2	horizontal fixed roof	antifreeze storage	ambient	-	3000	-	-
BF1	vertical fixed roof	boiler fuel oil	ambient	0.0074	5000	392948.5	6.99
BF2	vertical fixed roof	boiler fuel oil	ambient	0.0074	5000	392948.5	6.99
						VOC EMISSIONS from new tanks (lb/yr)	1644.51
						(ton/yr)	0.82

TOTAL VOC EMISSIONS from all tanks (lb/yr)	**6702.38**
(ton/yr)	**3.35**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Beaver Oil Company, Inc.**
Address City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4.19	36.7

Existing Johnston Boiler

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.8	0.1	1.5

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Beaver Oil Company, Inc.**
Address City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.849E-05	2.200E-05	1.375E-03	3.299E-02	6.232E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.165E-06	2.016E-05	2.566E-05	6.966E-06	3.849E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil

Company Name: **Beaver Oil Company, Inc.**
Address, City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
		0.5
4.19	262.174286	

Existing Johnston Boiler

	Pollutant				
	PM	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.4	9.3	2.6	0.0	0.7

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
PM Emission Factor is Condensable and Filterable PM
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: **Beaver Oil Company, Inc.**
Address, City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	7.341E-05	5.506E-05	5.506E-05	5.506E-05	1.652E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	5.506E-05	1.101E-04	5.506E-05	2.753E-04

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

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Address City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
8.37	73.3

New Cleaver Brooks Boiler

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.3	0.3	0.0	3.7	0.2	3.1

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Beaver Oil Company, Inc.**
Address City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.699E-05	4.399E-05	2.750E-03	6.599E-02	1.246E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.833E-05	4.033E-05	5.132E-05	1.393E-05	7.699E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil

Company Name: **Beaver Oil Company, Inc.**
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CP: **089-10557**
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Reviewer: Janusz Johnson
Date: 02/23/99

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
		0.5
8.37	523.722857	

New Cleaver Brooks Boiler

	Pollutant				
	PM	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.9	18.6	5.2	0.1	1.3

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
PM Emission Factor is Condensable and Filterable PM
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: **Beaver Oil Company, Inc.**
Address, City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	1.466E-04	1.100E-04	1.100E-04	1.100E-04	3.299E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.100E-04	2.200E-04	1.100E-04	5.499E-04

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil

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CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
		0.5
2.9	181.457143	

Existing Cleaver Brooks Boiler (to be replaced)

	Pollutant				
	PM	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.3	6.4	1.8	0.0	0.5

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
PM Emission Factor is Condensable and Filterable PM
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: **Beaver Oil Company, Inc.**
Address, City IN Zip: **1040 Michigan Street, Gary, IN**
CP: **089-10557**
Plt ID: **089-00151**
Reviewer: Janusz Johnson
Date: 02/23/99

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	5.081E-05	3.811E-05	3.811E-05	3.811E-05	1.143E-04

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	3.811E-05	7.621E-05	3.811E-05	1.905E-04

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton